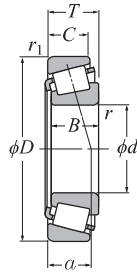


Tapered Roller Bearings

Metric series

NTN



d 15–30 mm

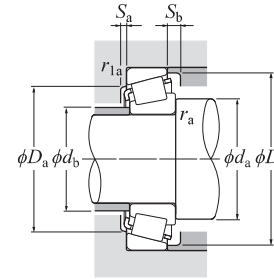
d	Boundary dimensions						Basic load rating		Fatigue load limit kN C _u	Allowable speed min ⁻¹		Bearing number ²⁾
	mm						dynamic kN	static		Grease lubrication	Oil lubrication	
	D	T	B	C	r _{s min} ¹⁾	r _{1s min} ¹⁾	C _r	C _{0r}				
15	42	14.25	13	11	1	1	25.8	20.8	—	9 900	13 000	4T-30302
17	40	13.25	12	11	1	1	22.7	20.3	—	9 900	13 000	4T-30203
	40	17.25	16	14	1	1	30.5	28.3	—	9 900	13 000	4T-32203
	40	17.25	16	14	1	1	29.1	28.2	—	9 900	13 000	○4T-32203R
	47	15.25	14	12	1	1	32.0	26.3	—	9 000	12 000	4T-30303
20	42	15	15	12	0.6	0.6	27.6	27.9	—	9 500	13 000	4T-32004X
	47	15.25	14	12	1	1	31.0	28.7	—	8 800	12 000	4T-30204
	47	19.25	18	15	1	1	40.5	39.5	—	8 800	12 000	4T-32204
	52	16.25	16	13	1.5	1.5	39.0	34.0	—	8 000	11 000	4T-30304A
	52	16.25	16	12	1.5	1.5	34.5	31.0	—	7 600	10 000	4T-30304CA
	52	22.25	21	18	1.5	1.5	51.5	48.5	—	8 000	11 000	4T-32304
22	44	15	15	11.5	0.6	0.6	30.0	31.5	—	8 900	12 000	4T-320/22X
25	47	15	15	11.5	0.6	0.6	31.0	33.5	—	7 900	11 000	4T-32005X
	47	17	17	14	0.6	0.6	36.0	40.5	—	8 000	11 000	4T-33005
	52	16.25	15	13	1	1	35.0	34.0	—	7 300	9 800	4T-30205
	52	19.25	18	16	1	1	46.5	47.0	—	7 300	9 800	4T-32205
	52	19.25	18	15	1	1	42.0	43.0	—	7 300	9 800	○4T-32205R
	52	19.25	18	15	1	1	42.5	46.5	—	7 100	9 400	4T-32205C
	52	19.25	18	15	1	1	38.0	42.0	—	7 100	9 400	○4T-32205CR
	52	22	22	18	1	1	52.5	57.5	—	7 300	9 800	4T-33205
	62	18.25	17	15	1.5	1.5	54.0	47.5	—	6 700	8 900	4T-30305
	62	18.25	17	14	1.5	1.5	46.0	41.5	—	6 400	8 500	4T-30305C
	62	18.25	17	13	1.5	1.5	45.0	43.5	—	5 900	7 800	4T-30305D
	62	25.25	24	20	1.5	1.5	68.0	64.5	—	6 700	8 900	4T-32305
28	52	16	16	12	1	1	37.0	40.5	—	7 300	9 700	4T-320/28X
	58	24	24	19	1	1	64.5	69.5	—	6 700	8 900	4T-332/28
30	55	17	17	13	1	1	41.5	46.0	—	6 900	9 200	4T-32006X
	55	20	20	16	1	1	47.0	54.0	—	6 900	9 200	4T-33006
	62	17.25	16	14	1	1	48.5	48.0	—	6 300	8 400	4T-30206
	62	21.25	20	17	1	1	60.5	64.0	—	6 300	8 400	4T-32206
	62	21.25	20	17	1	1	55.5	60.0	—	6 100	8 100	4T-32206C
	62	25	25	19.5	1	1	72.0	77.0	—	6 300	8 400	4T-33206
	72	20.75	19	16	1.5	1.5	66.5	61.0	—	5 700	7 600	4T-30306

- 1) Smallest allowable dimension for chamfer dimension r or r_1 .
2) Bearings with a ○ mark do not incorporate the subunit dimensions.

B-134

Tapered Roller Bearings

NTN



Dynamic equivalent radial load

$$P_r = X F_r + Y F_a$$

$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
X	Y	X	Y
1	0	0.4	Y ₂

Static equivalent radial load

$$P_{0r} = 0.5 F_r + Y_0 F_a$$

When $P_{0r} < F_r$ use $P_{0r} = F_r$.

For values of e , Y_2

and Y_0 see the table below.

ISO Dimension series	Installation-related dimensions										Load center		Constant		Axial load factors		Mass	
	mm										mm						kg	
	d _a Min.	d _b Max.	D _a Max.	D _b Min.	S _a Min.	S _b Min.	r _{as} Max.	r _{1as} Max.	a	e	Y ₂	Y ₀	(approx.)					
2FB	20.5	22	36.5	34.5	38	2	3	1	1	9.5	0.29	2.11	1.16	0.096				
2DB	22.5	23	34.5	32.5	37.5	2	2	1	1	9.5	0.35	1.74	0.96	0.08				
2DD	22.5	22.5	34.5	32	37.5	2	3	1	1	11.5	0.31	1.92	1.06	0.102				
	22.5	22	34.5	31	37.5	2	3	1	1	11	0.35	1.74	0.96	0.105				
2FB	22.5	24.5	41.5	38.5	42.5	3	3.5	1	1	10.5	0.29	2.11	1.16	0.132				
3CC	24.5	25	37.5	33.5	39.5	3	3	0.6	0.6	10.5	0.37	1.6	0.88	0.097				
2DB	25.5	27	41.5	38.5	44	2	3	1	1	11.5	0.35	1.74	0.96	0.124				
2DD	25.5	26	41.5	37	43	2	4	1	1	12.5	0.33	1.81	1.00	0.161				
2FB	28.5	28	43.5	42.5	47.5	3	3	1.5	1.5	10.5	0.30	2.00	1.10	0.172				
	28.5	27.5	43.5	39.5	48	3	4	1.5	1.5	13.5	0.55	1.10	0.60	0.17				
2FD	28.5	27	43.5	41	47.5	3	4	1.5	1.5	14	0.30	2.00	1.10	0.242				
3CC	26.5	27	39.5	35.5	41.5	3	3.5	0.6	0.6	11	0.40	1.51	0.83	0.105				
4CC	29.5	29.5	42.5	38.5	44.5	3	3.5	0.6	0.6	12	0.43	1.39	0.77	0.113				
2CE	29.5	30	42.5	39	44.5	3	3	0.6	0.6	11	0.29	2.07	1.14	0.13				
3CC	30.5	31	46.5	42	48.5	2	3	1	1	12.5	0.37	1.60	0.88	0.155				
2CD	30.5	31	46.5	42.5	49.5	2	4	1	1	14	0.36	1.67	0.92	0.187				
	30.5	30.5	46.5	41.5	49	2	4	1	1	13.5	0.37	1.60	0.88	0.185				
5CD	30.5	30	46.5	38.5	50	2	4	1	1	16	0.58	1.03	0.57	0.192				
	30.5	30.5	46.5	39.5	49.5	2	4	1	1	16	0.55	1.10	0.60	0.189				
2DE	30.5	30.5	46.5	41	49.5	4	4	1	1	14	0.35	1.71	0.94	0.219				
2FB	33.5	34	53.5	52	57.5	3	3	1.5	1.5	13	0.30	2.00	1.10	0.268				
	33.5	34	53.5	48	58	3	4	1.5	1.5	16	0.55	1.10	0.60	0.264				
7FB	33.5	33.5	53.5	45	59	3	5	1.5	1.5	20	0.83	0.73	0.40	0.266				
2FD	33.5	33	53.5	50	57.5	3	5	1.5	1.5	16	0.30	2.00	1.10	0.377				
4CC	33.5	33	46.5	43	49.5	3	4	1	1	12.5	0.43	1.39	0.77	0.146				
2DE	33.5	33.5	52.5	47	55	5	5	1	1	15.5	0.34	1.77	0.97	0.293				
4CC	35.5	35.5	49.5	45.5	52.5	3	4	1	1	13.5	0.43	1.39	0.77	0.172				
2CE	35.5	35.5	49.5	46.5	52	3	4	1	1	13	0.29	2.06	1.13	0.201				
3DB	35.5	37.5	56.5	51	58	2	3	1	1	13.5	0.37	1.60	0.88	0.236				
3DC	35.5	36.5	56.5	50	58	2.5	4	1	1	15.5	0.37	1.60	0.88	0.299				
5DC	35.5	36	56.5	48	59.5	2	5	1	1	18.5	0.56	1.07	0.59	0.297				
2DE	35.5	36	56.5	50.5	59	5	5.5	1	1	16	0.34	1.76	0.97	0.348				
2FB	38.5	40	63.5	60	65.5	3	4.5	1.5	1.5	15	0.31	1.90	1.05	0.404				

B-135